

CLAIMS

What is claimed is:

1 1. A method for reducing an amount of horizontal space required when displaying
2 a plurality of columns on a display screen, at least one column of the plurality of columns
3 having at least one entry containing text data, the method comprising the steps of:

- 4 (a) obtaining the at least one entry from the at least one column;
5 (b) abbreviating a width of the at least one entry;
6 (c) determining if there is another entry containing text data;
7 (d) repeating steps (b) and (c) until all of the at least one entry of the at least one
8 column are abbreviated; and
9 (e) displaying the at least one column having the at least one abbreviated entry.

1 2. The method of claim 1 wherein the at least one entry includes at least one
2 column heading.

1 3. The method of claim 2 wherein the at least one column heading includes a first
2 plurality of characters; and wherein abbreviating step (b) further includes the step of:

- 3 (b1) removing at least one character of a second plurality of characters if the at least
4 one column heading includes the at least one character.

1 4. The method of claim 3 wherein the second plurality of characters further
2 includes a plurality of vowels.
lower case

1 5. The method of claim 2 wherein the at least one column heading includes a first
2 plurality of characters, the plurality of characters being capable of containing at least one lower
3 case character; and wherein abbreviating step (b) further includes the step of:
4 (b1) removing the at least one lower case character if the at least one column
5 heading includes the at least one lower case character.

1 6. The method of claim 2 wherein the at least one column heading includes a first
2 plurality of characters, the first plurality of characters being capable of containing at least one
3 space; and wherein abbreviating step (b) further includes the step of:
4 (b1) removing the at least one space if the at least one column heading includes the
5 at least one space.

1 7. A method for reducing an amount of horizontal space required when displaying
2 a plurality of column on a display screen, at least one column of the plurality of columns
3 including at least one entry containing text data, the method comprising the steps of:
4 (a) determining a character type;
5 (b) obtaining the at least one entry; and
6 (c) abbreviating a width of the at least one entry by
7 (c1) removing at least one character having a first character type if the at
8 least one entry includes the at least one character and if the character type is the first character
9 type;
10 (c2) removing at least one lower case character if the at least one entry
11 includes the at least one lower case character and if the character type is a second character

12 type, the second character type being a lower case character; and
13 (c3) removing at least one space if the at least one entry includes the at least
14 one space and if the character type is a third character type, the third character type being a
15 space.

1 8. The method of claim 7 wherein the at least one entry further includes at least
2 one column heading.

1 9. The method of claim 8 further comprising the step of:
2 (d) repeating steps (b) and (c) for each of the at least one column for a particular
3 character type of the plurality of character types.

1 10. The method of claim 9 further comprising the step of:
2 (e) repeating steps (a), (b), and (c) for each of the at least one columns for each of
3 the plurality of character types.

1 11. The method of claim 10 wherein the at least one character of the plurality of
2 characters removing step (c1) further includes the step of:
3 (c1i) removing the at least one character having the first character
4 type if the at least one column heading includes the at least one character and if the at least one
5 column heading is wider than a particular column width.

1 12. The method of claim 11 wherein the at least one lower case character removing

2 step (c2) further includes the step of:
3 (c2i) removing the at least one lower case character if the at least one
4 column heading includes the at least one lower case character, if the character type is the
5 second character type, and if the at least one column heading is wider than the particular
6 column width.

1 13. The method of claim 11 wherein the at least one space removing step (c3)
2 further includes the step of:
3 (c3i) removing at least one space if the at least one column heading
4 includes the at least one space, if the character type is the third character type, and if the at least
5 one column heading is wider than the particular column width.

1 14. The method of claim 13 wherein the abbreviating step (c) further comprises the
2 step of:
3 (c4) truncating the at least one column heading if the width of the at least one
4 column heading is greater than the particular column width and if the at least one column
5 heading does not contain any character of the first character type, the second character type, or
6 the third character type.

1 15. A computer-readable medium containing a program for reducing an amount of
2 horizontal space required when displaying a plurality of columns on a display screen, the
3 plurality of columns including at least one column having at least one entry containing text
4 data, the program comprising instructions for:

5 obtaining the at least one entry of the at least one column;
6 abbreviating a width of the at least one entry;
7 determining if there is another entry containing text data;
8 repeating the instructions for abbreviating the at least one entry and determining if
9 there is another entry containing text data until all of the at least one entry is abbreviated; and
10 displaying the at least one abbreviate entry of the at least one column.

1 16. The computer-readable medium of claim 15 wherein the at least one entry
2 includes at least one column heading.

1 17. The computer-readable medium of claim 16 wherein the at least one column
2 heading include a first plurality of characters, and wherein the instructions for abbreviating the
3 at least one column heading further includes instructions for:
4 removing at least one character of a second plurality of characters if the at least one
5 column heading includes the at least one character.

1 18. The computer-readable medium of claim 17 wherein the second plurality of
2 characters further includes a plurality of vowels.
lower case

1 19. The computer-readable medium of claim 16 wherein the at least one column
2 heading includes a first plurality of characters, the plurality of characters being capable of
3 containing at least one ~~upper~~^{lower} case character; and wherein the instructions for abbreviating the
4 column heading further includes instructions for:

5 removing the at least one ^{lower}_{upper} case character if the at least one column heading
6 includes the at least one ^{lower}_{upper} case character.

1 20. The computer-readable medium of claim 16 wherein the at least one column
2 heading includes a first plurality of characters, the plurality of characters being capable of
3 containing at least one space; and wherein the instructions for abbreviating the at least one
4 column heading further includes instructions for:

5 removing the at least one space if the at least one column heading includes the at least
6 one space.

1 21. A computer-readable medium containing a program for reducing an amount of
2 horizontal space used when displaying a plurality of columns on a display screen, at least one
3 column of the plurality of columns having at least one entry containing text data, the at least
4 one entry including a first plurality of characters, the program comprising instructions for:

5 (a) determining a character type;
6 (b) obtaining the at least one entry of the at least one column; and
7 (c) abbreviating a width of the at least one entry by
8 (c1) removing at least one character of a second plurality of characters

9 having a first character type if the at least one entry includes the at least one character and if the
10 character type is the first character type;

11 (c2) removing at least one lower case character if the at least one entry
12 includes the at least one lower case character and if the character type is a second character
13 type, the second character type being a lower case character; and

14 (c3) removing at least one space if the at least one entry includes the at least
15 one space and if the character type is a third character type, the third character type being a
16 space.

1 22. The computer-readable medium of claim 21 wherein the at least one entry
2 includes at least one column heading.

1 23. The computer-readable medium of claim 22 further comprising instructions for:
2 (d) repeating the instructions (b) and (c) for a particular character type of the
3 plurality of character types.

1 24. The computer-readable medium of claim 23 further comprising instructions for:
2 (e) repeating the instructions (a), (b), and (c) for each of the plurality of columns
3 for each of the plurality of character types.

1 25. The computer-readable medium of claim 24 wherein the instructions for
2 removing the at least one character of the plurality of characters (c1) further includes
3 instructions for:
4 (c1i) removing the at least one character of a second plurality of
5 characters having the first character type if the at least one column heading includes the at least
6 one character, if the character type is the first character type, and if the at least one column
7 heading is wider than a particular column width.

1 26. The computer-readable medium of claim 25 wherein the instructions for
2 removing the at least one lower case character (c2) further includes instructions for:
3 (c2i) removing at least one lower case character if the at least one
4 column heading includes the at least one lower case character, if the character type is the
5 second character type, and if the at least one column heading is wider than the particular
6 column width.

1 27. The computer-readable medium of claim 26 wherein the instructions for
2 removing the at least one space (c3) further includes instructions for:
3 (c3i) removing at least one space if the at least one column heading
4 includes the at least one space, if the character type is the third character type, and if the at least
5 one column heading is wider than the particular column width.

1 28. The computer-readable medium of claim 27 wherein the instructions for
2 abbreviating the at least one column heading (c) further includes instructions for:
3 (c4) truncating the at least one column heading if the at least one column heading is
4 wider than the particular column width and if the at least one column heading does not contain
5 any character of the first character type, the second character type or the third character type.

1 29. A system for reducing an amount of horizontal space used when displaying a
2 plurality of column on a display screen, at least one column of the plurality of columns having
3 at least one entry containing text data the system comprising:
4 means for obtaining the at least one entry of the at least one column;

5 means coupled with the obtaining means for abbreviating a width of the at least one
6 entry; and

7 means coupled with the abbreviating means for displaying the at least one entry.

1 30. The system of claim 29 wherein the at least one entry includes at least one
2 column heading.

1 31. The system of claim 30 wherein the at least one column heading further
2 includes a plurality of characters and wherein the abbreviating means further comprise:

3 means for determining a character type for at least one of the plurality of characters, the
4 character type including a first character type, a second character type, and a third character
5 type;

6 means coupled with the determining means for removing the at least one of the
7 plurality of characters if the character type is the first character type and if the width of the at
8 least one column heading is greater than a particular width;

9 means coupled with the determining means for removing the at least one character if
10 the character type is a second character type and if the width of the at least one column heading
11 is greater than the particular width, the second character type being a lower case character;

12 means coupled with the determining means for removing the at least one character if
13 the character type is a third character type and if the width of the at least one column heading is
14 greater than the particular width, the third character type being a space; and

15 means coupled with the determining means for truncating the column heading if the
16 width of the at least one column heading is greater than the particular width and if the at least

- 17 one column heading does not contain any character of the first character type, the second
18 character type or the third character type.

add B7

Add
C5 >